

Feature

- ※ High gain
- ※ Omani-directional
- ※ Wide bandwidth

Application

※GSM850/900/DCS/PCS/WCDMA B1/B2/B4/B5/B8

LTE B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B20/B28/B38/B41/B66

NR Mode N1/N3/N5/N7/N8/N12/N20/N28/N38/N41/N66/N77/N78

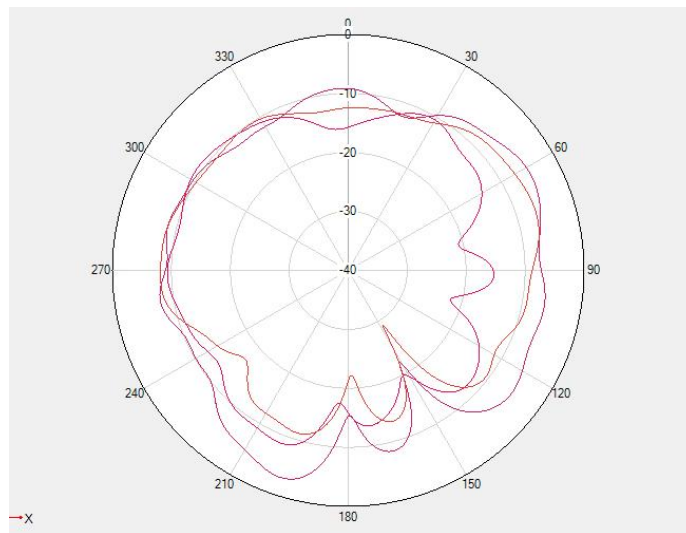
TYPE	
Transmitter Frequency	GSM 850/WCDMA B5/LTE B5 NR n5: 824-849 MHz
	GSM 900/WCDMA B8/LTE B8 NR n8: 880-915 MHz
	DCS /WCDMA B4/LTE B3/B4/B66 NR n3/n66: 1710-1785 MHz
	PCS/WCDMA B2/LTE B2:1850-1910MHz
	WCDMA B1/LTE B1 NR n1: 1920-1980MHz
	LTE B7 NR n7:2496-2565MHz
	LTE B38/B41 NR n38/n41:2565-2645MHz
	LTE B20 NR n20:832-862MHz
	LTE B12/B13/B17/B28 NR n12/n28:710-755MHz
	LTE B42 NR n77/n78:3300-4200MHz
Receiver Frequency	GSM 850/WCDMA B5/LTE B5 NR n5: 869-894 MHz
	GSM 900/WCDMA B8/LTE B8 NR n8: 925-960 MHz
	DCS/LTE B3/B66 NR n3/n66: 1805-1880 MHz
	WCDMA 4/LTE B4 NR n4: 2110-2155 MHz
	PCS/WCDMA B2/LTE B2:1930-1990MHz
	WCDMA B1/LTE B1 NR n1: 2110-2170MHz
	LTE B7 NR n7:2620-2690MHz
	LTE B38/41 NR n38/n41:2565-2645MHz
	LTE B20 NR n20:791-821MHz
	LTE B12/B13/B17/B28 NR n12/n28:758-803MHz

		LTE B42 NR n77/n78:3300-4200MHz
RF-Output Power (E.I.R.P)		GSM850/900: 33+/-2dBm
		DCS/PCS: 30+/-2dBm
		LTE B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B20/B28/B38/B41/B42/B66: 23+/-2.7dBm
		WCDMA B1/B2/B4/B5/ B8: 24 +1/-3dBm
		NR N1/N3/N5 /N7/ N8/N12/N20/N28/N38/ N41/N66: 23+/-2.7dBm
		NR N77/N78: 26+/-2.7dBm
Antenna Gain	ANT0	N77/N78:-4 dBi
	ANT1	GSM 850/WCDMA B5/LTE B5 NR n5: -8 dBi
		GSM 900/WCDMA B8/LTE B8 NR n8: -5.6dBi
		LTE B12/B13/B17/B28 NR n12/n28:-6.5dBi
		LTE B20 NR n20:-8 dBi
	ANT2	DCS /WCDMA B4/LTE B3/B4/B66 NR n3/n66: -3 dBi
		PCS/WCDMA B2/LTE B2: -3 dBi
		WCDMA B1/LTE B1 NR n1: -3dBi
		LTE B7/B38/B41 NR n7/n38/n41: -3.2dBi
	ANT3	GSM 850/WCDMA B5/LTE B5 NR n5: -8dBi
		GSM 900/WCDMA B8/LTE B8 NR n8: -5.6dBi
		LTE B12/B13/B17/B28 NR n12/n28:-9dBi
		LTE B20 NR n20:-8 dBi
	ANT4	N77/N78:-3 dBi
		DCS /WCDMA B4/LTE B3/B4/B66 NR n3/n66: -1.7 dBi
		PCS/WCDMA B2/LTE B2: -2.7 dBi
		WCDMA B1/LTE B1 NR n1: -5.6dBi
		LTE B7/B38/B41 NR n7/n38/n41: -5dBi
		B1:-3.8 dBi
		B3:-3.5dBi
		B7/B38/B41:-3 dBi
	ANT5(ENDC)	B42/N77/N78:-1.6 dBi
	ANT6	WIFI 5G:-0.5dBi
		B42/N77/N78:-2.5dBi
	ANT12	GPS(L1):-2.3 dBi
		WIFI 2.4G: -2.2 dBi

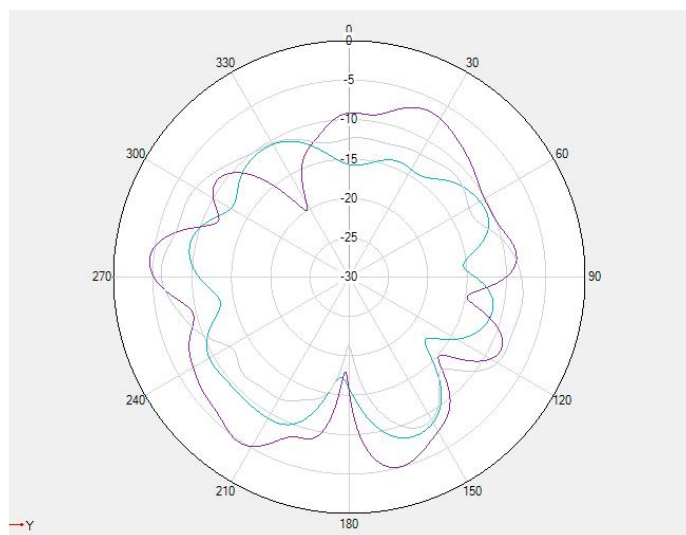
	ANT13	BT/WIFI 2.4G:-2.2 dBi
Type of Modulation		

※ Antenna Gain

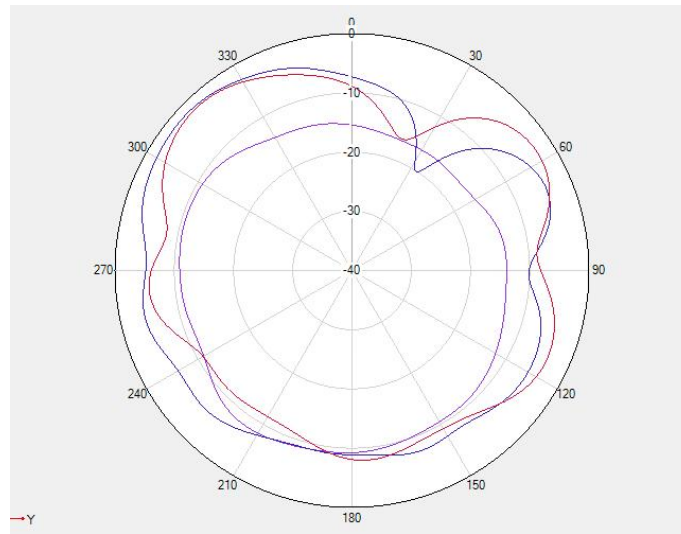
ANT0



NR n77/n78 $\Phi=0^\circ$

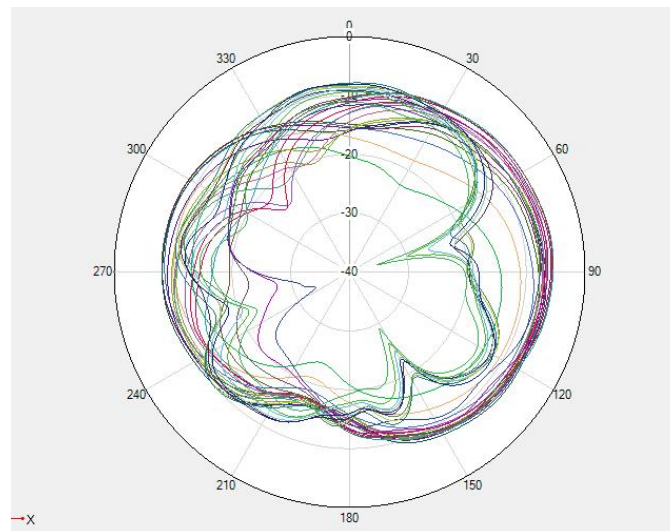


NR n77/n78 $\Phi=90^\circ$

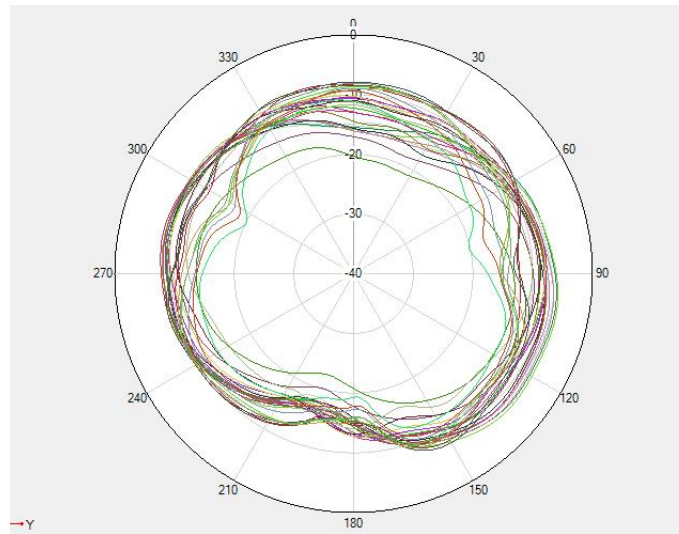


NR n77/n78 Theta=90deg

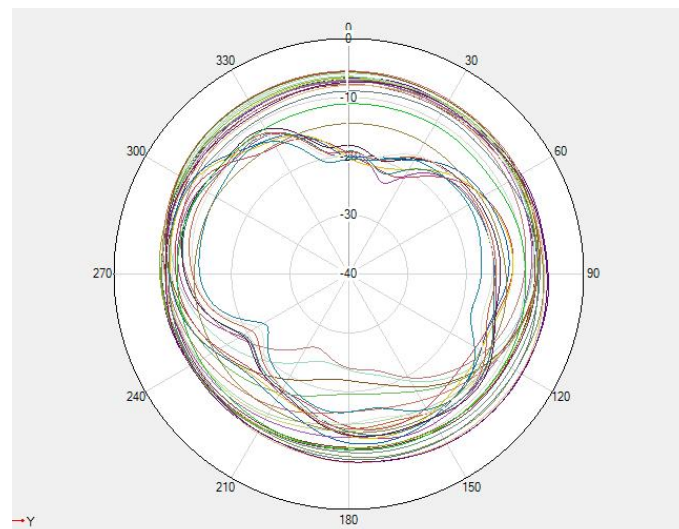
ANT1



GSM850/900 WCDMA B5/B8 LTE B5/B8/B12/B13/B17/B20/B28 NR n5/n8/n12/n20/n28 Phi=0deg

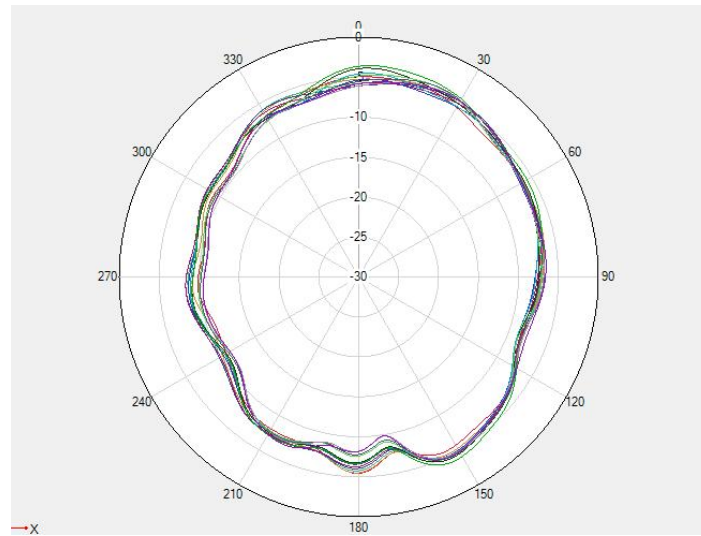


GSM850/900 WCDMA B5/B8 LTE B5/B8/B12/B13/B17/B20/B28 NR n5/n8/n12/n20/n28 Phi=90deg

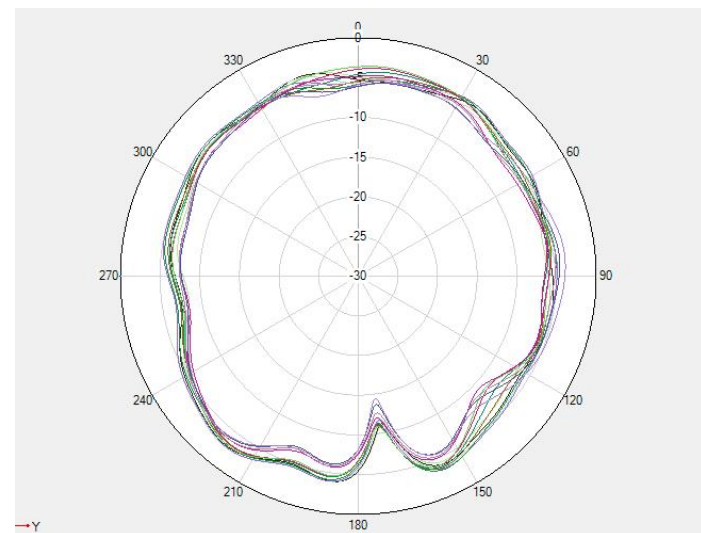


GSM850/900 WCDMA B5/B8 LTE B5/B8/B12/B13/B17/B20/B28 NR n5/n8/n12/n20/n28 Theta=90deg

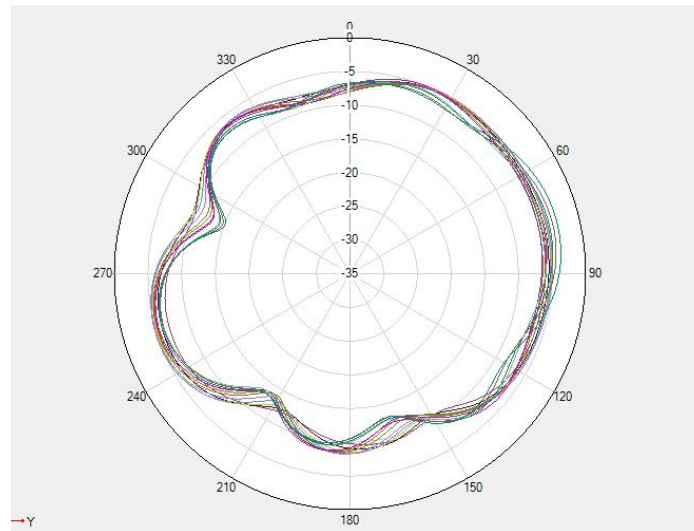
ANT2



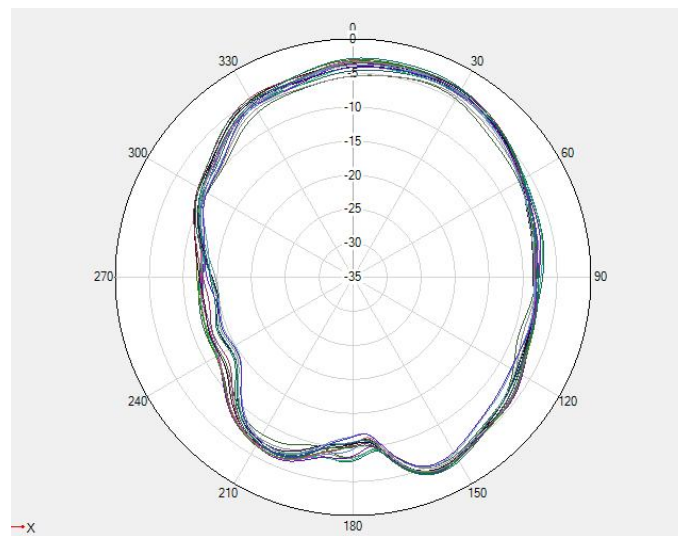
GSM1800/1900 WCDMA B2/B4 LTE B2/B3/B4/B66 NR n3/n66 Phi=0deg



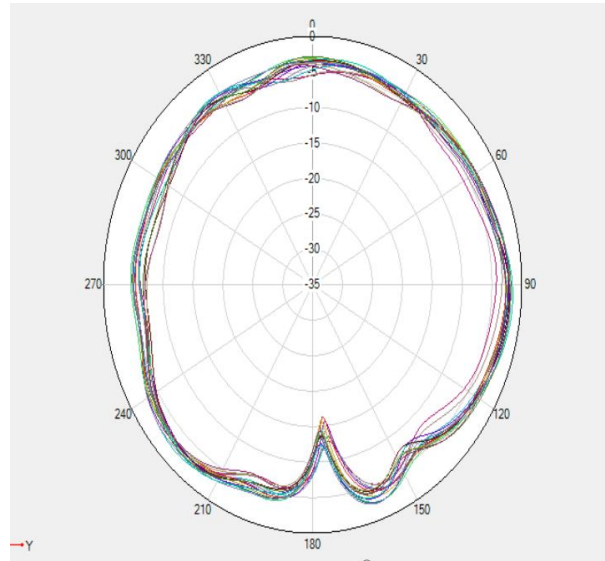
GSM1800/1900 WCDMA B2/B4 LTE B2/B3/B4/B66 NR n3/n66 Phi=90deg



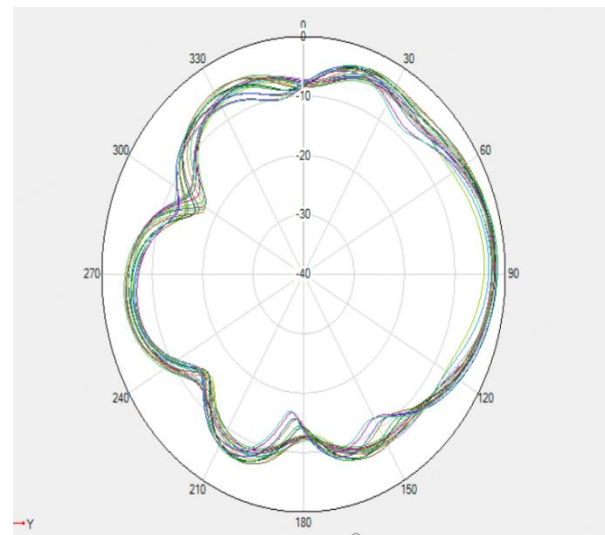
GSM1800/1900 WCDMA B2/B4 LTE B2/B3/B4/B66 NR n3/n66 Theta=90deg



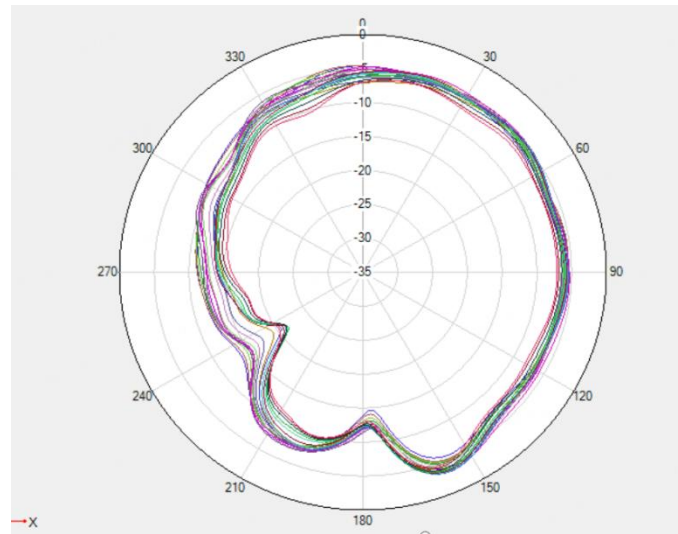
WCDMA B1 LTE B1 NR n1 Phi=0deg



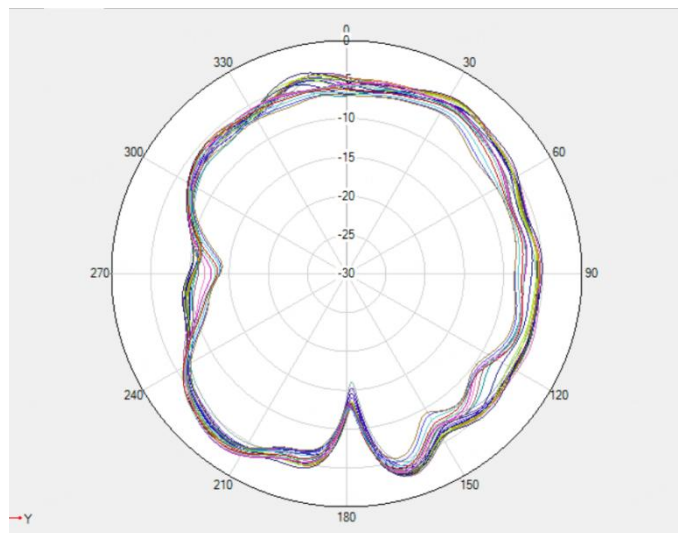
WCDMA B1 LTE B1 NR n1 $\Phi=90\text{deg}$



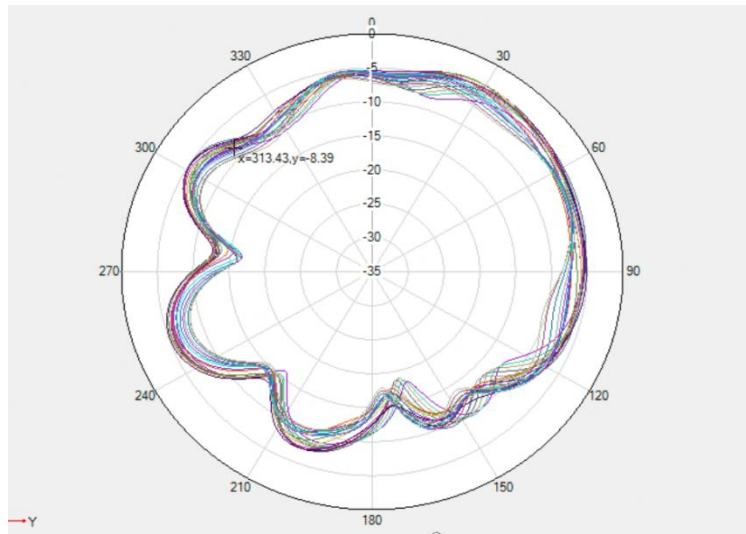
WCDMA B1 LTE B1 NR n1 $\Theta=90\text{deg}$



LTE B7/B38/B40/B41 NR n7/n38/n40/n41 Phi=0deg

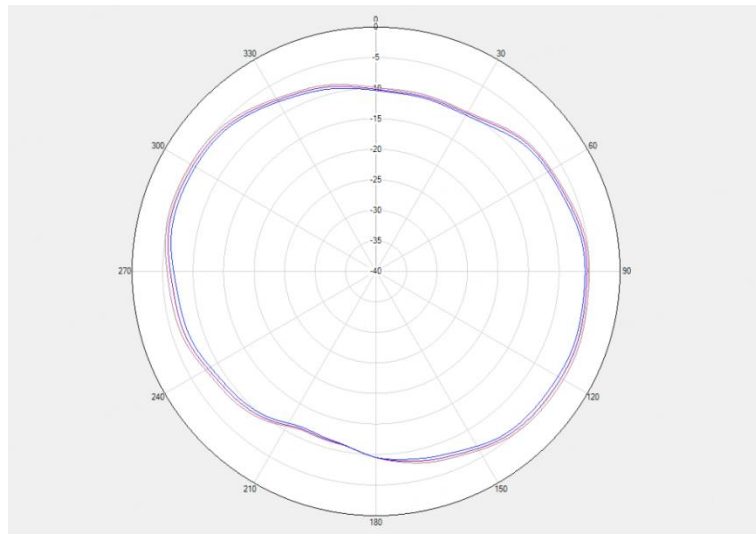


LTE B7/B38/B40/B41 NR n7/n38/n40/n41 Phi=90deg

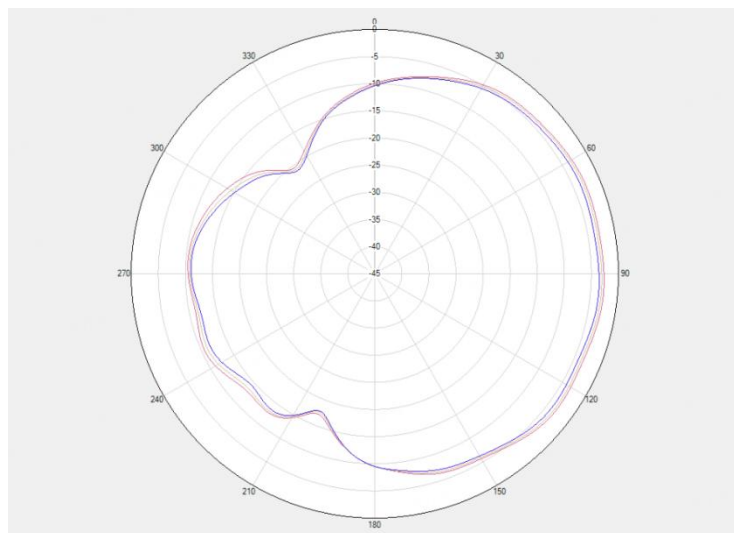


LTE B7/B38/B40/B41 NR n7/n38/n40/n41 Theta=90deg

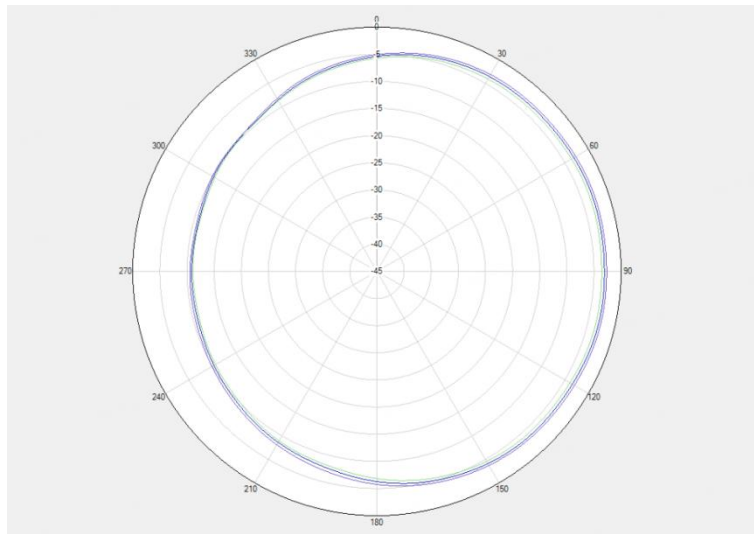
ANT3



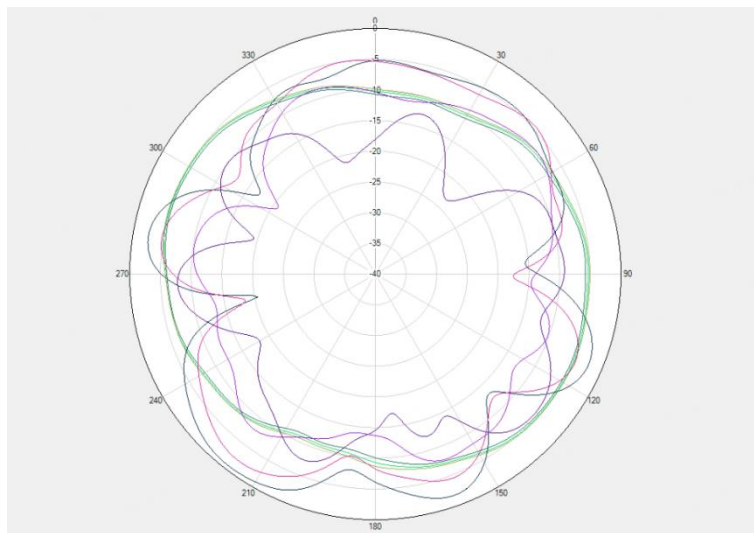
LTE B20 NR n20 $\Phi=0^\circ$



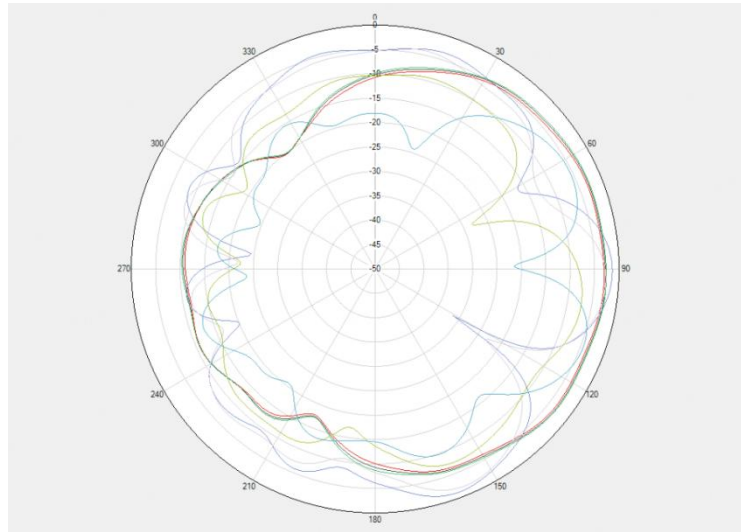
LTE B20 NR n20 $\Phi=90^\circ$



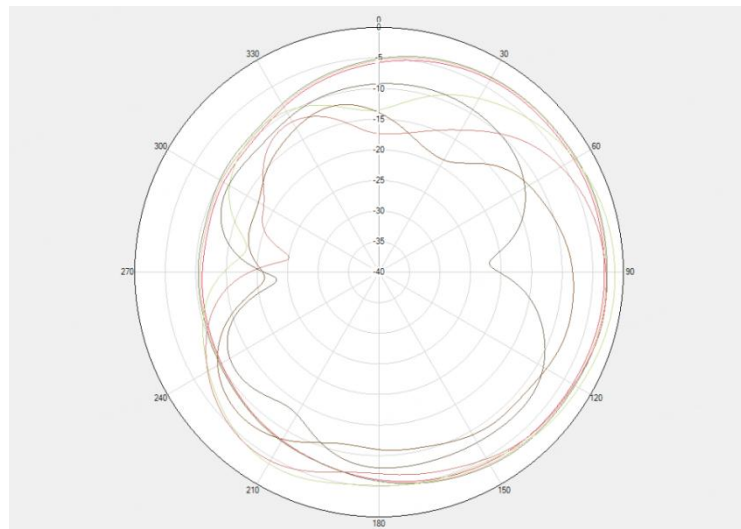
LTE B20 NR n20 Theta=90deg



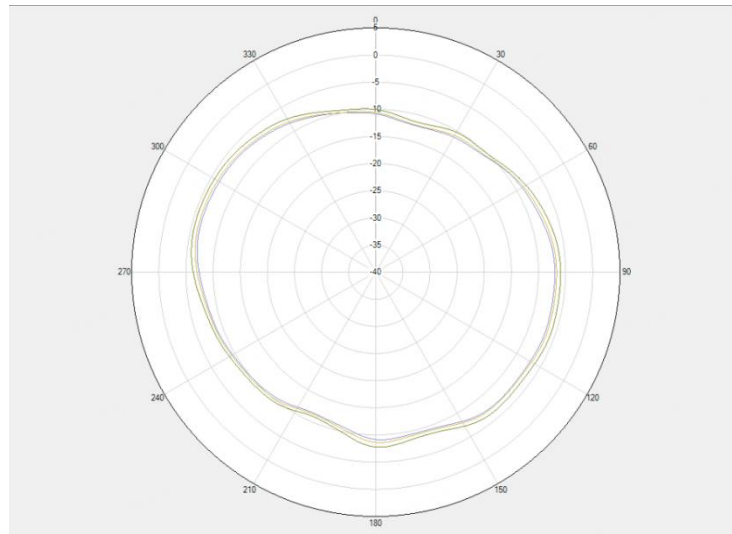
GSM850 WCDMA B5 LTE B5/b42 NR n5/n77/n78 Phi=0deg



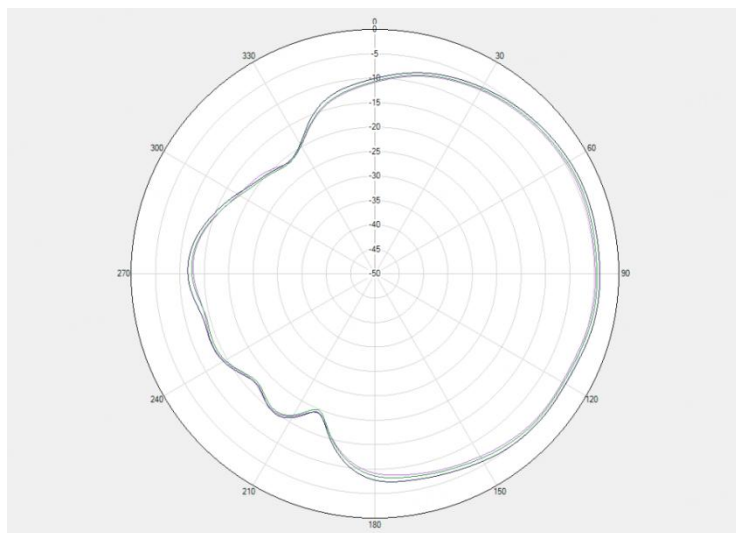
GSM850 WCDMA B5 LTE B5/b42 NR n5/n77/n78 Phi=90deg



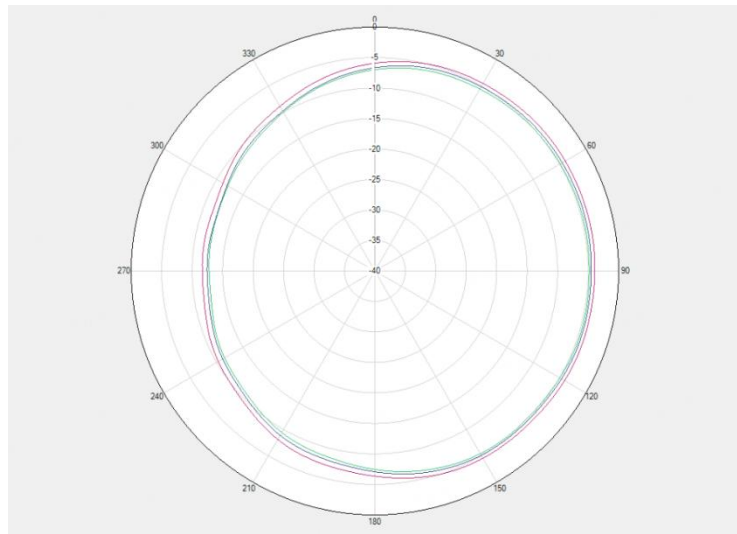
GSM850 WCDMA B5 LTE B5/b42 NR n5/n77/n78 Theta=90deg



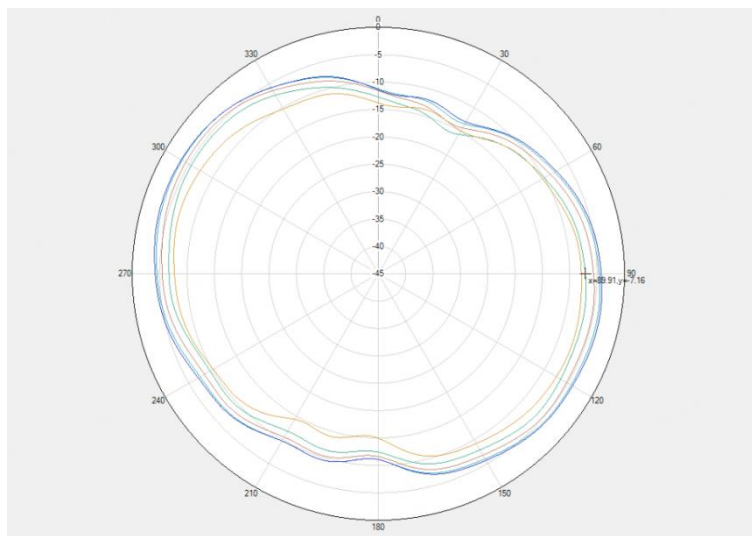
GSM900 WCDMA B8 LTE B8 NR n8 $\Phi = 0^\circ$



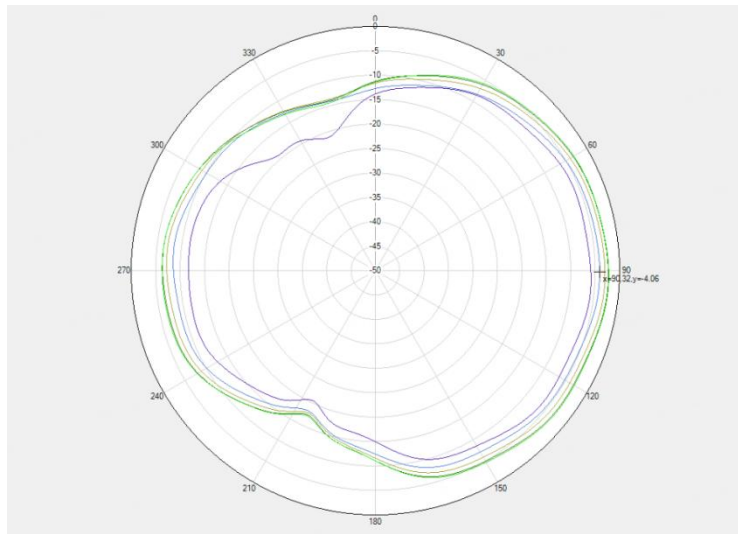
GSM900 WCDMA B8 LTE B8 NR n8 $\Phi = 90^\circ$



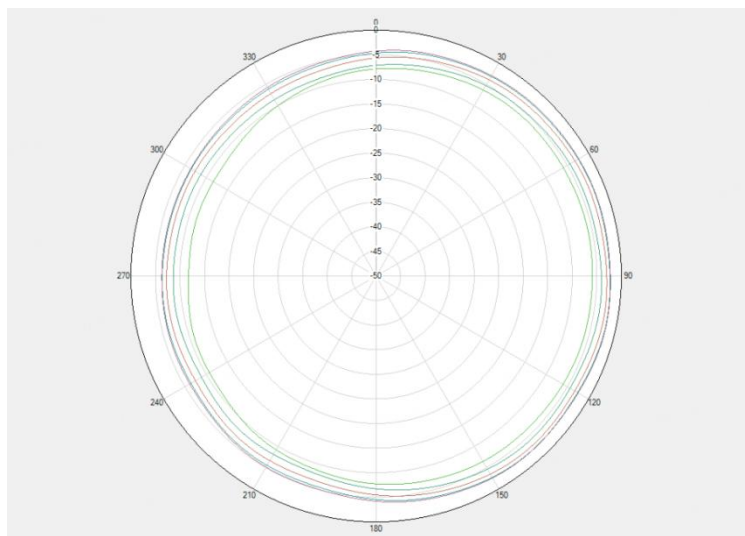
GSM900 WCDMA B8 LTE B8 NR n8 Theta=90deg



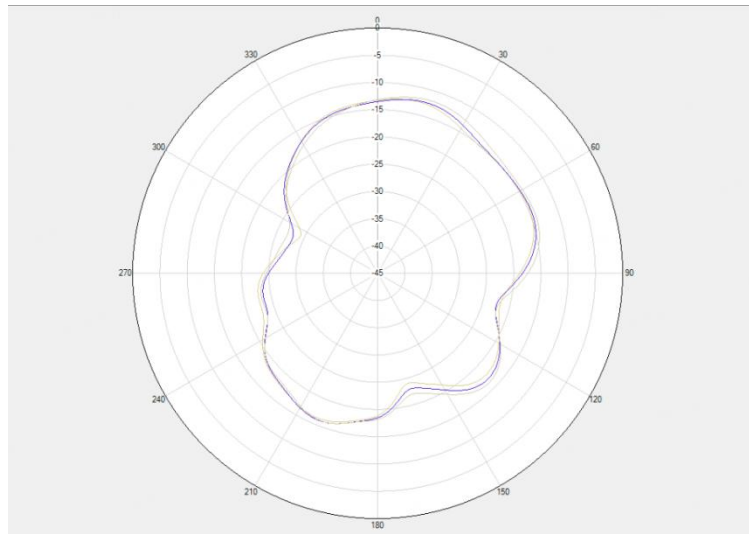
LTE B12/B13/B17/B28 NR n12/n20/28 Phi=0deg



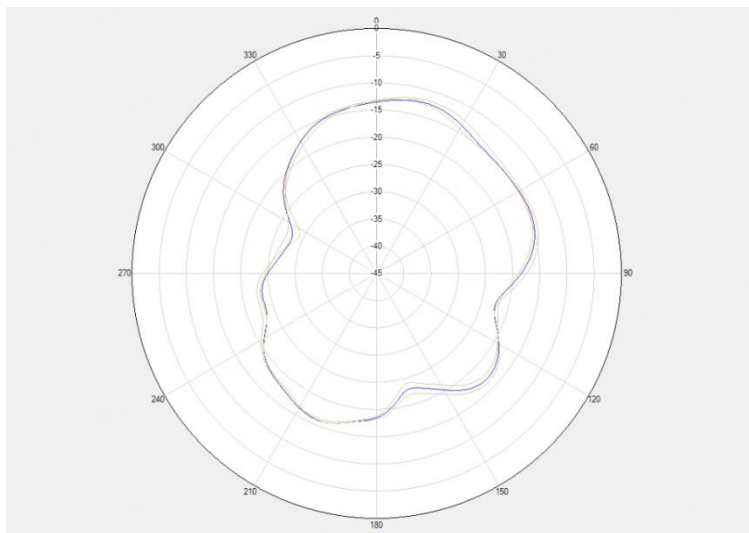
LTE B12/B13/B17/B28 NR n12/n20/28 Phi=90deg



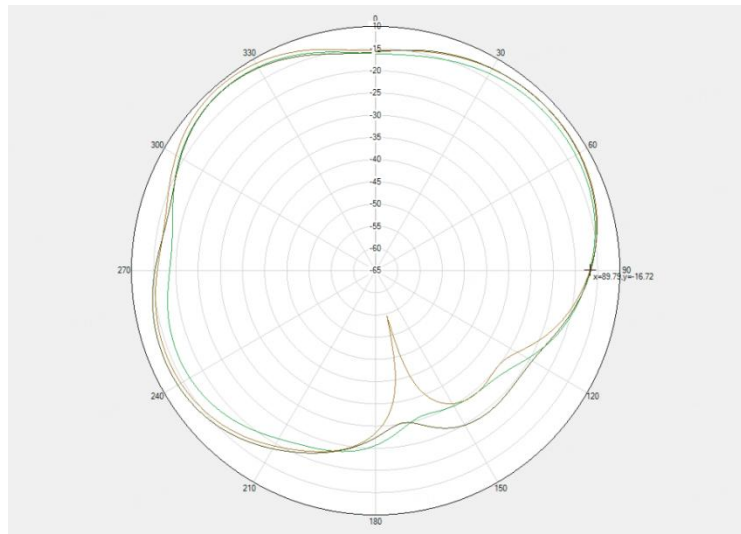
LTE B12/B13/B17/B28 NR n12/n20/28 Theta=90deg



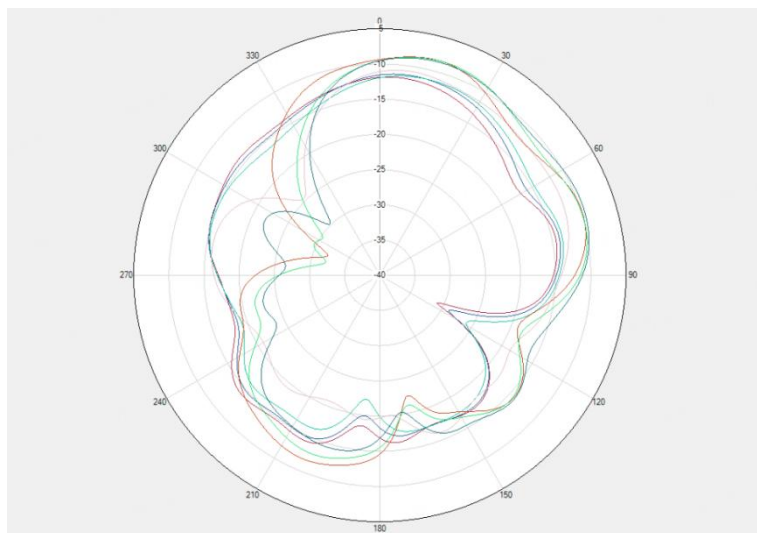
WCDMA B1 LTE B1 NR n1 $\Phi=0^\circ$



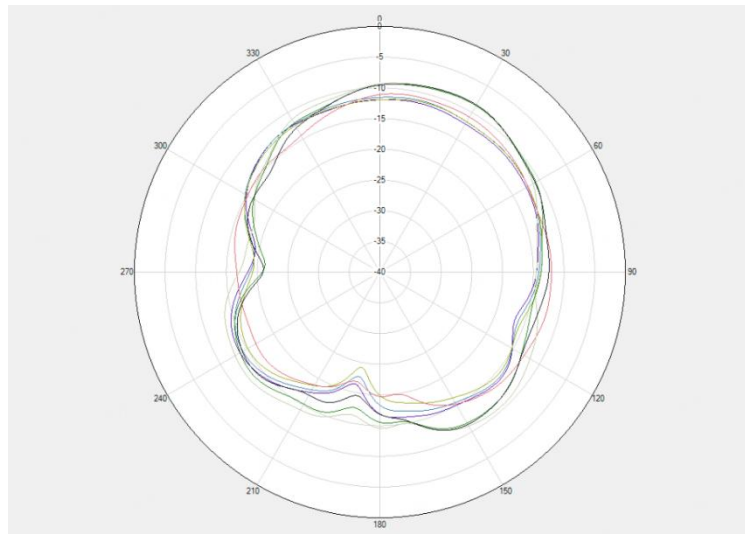
WCDMA B1 LTE B1 NR n1 $\Phi=90^\circ$



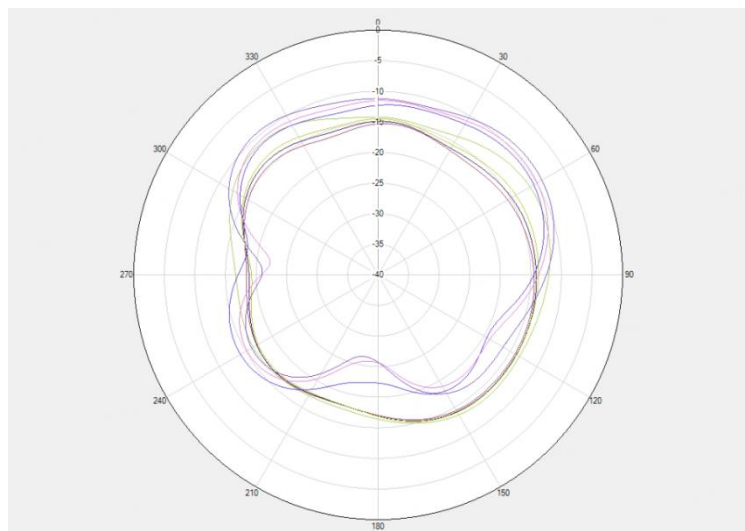
WCDMA B1 LTE B1 NR n1 Theta=90deg



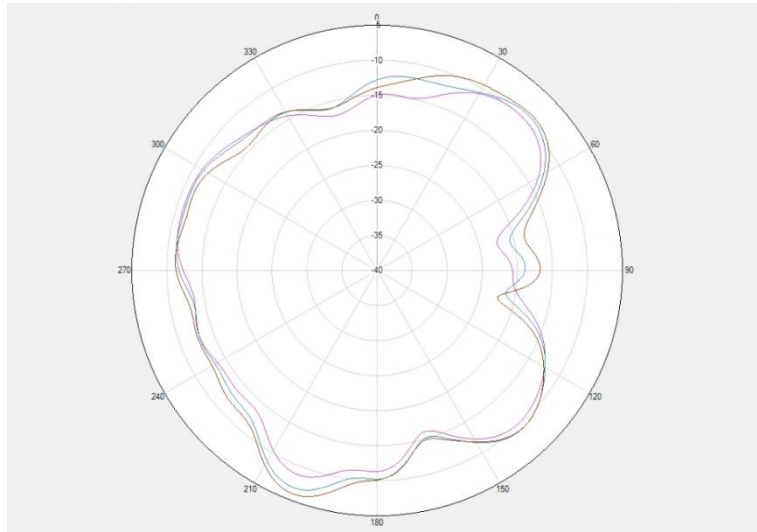
GSM1800/1900 WCDMA B2 LTE B2/B3/B4/B66 NR n3/n66 Phi=0deg



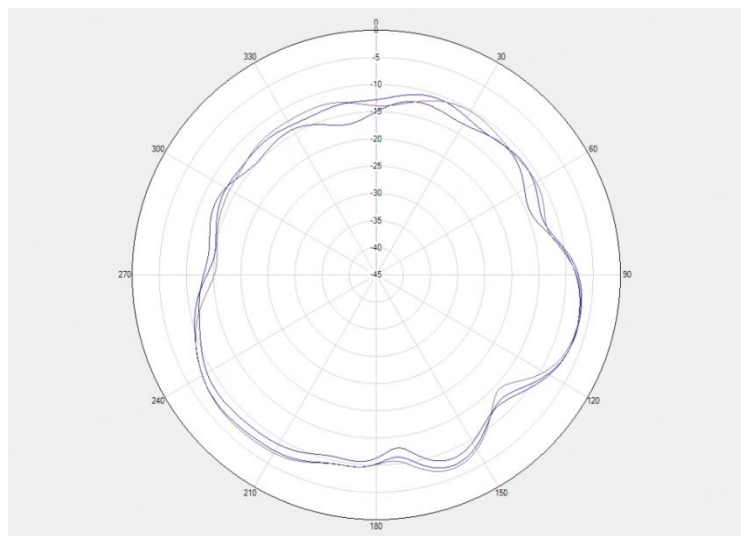
GSM1800/1900 WCDMA B2 LTE B2/B3/B4/B66 NR n3/n66 Phi=90deg



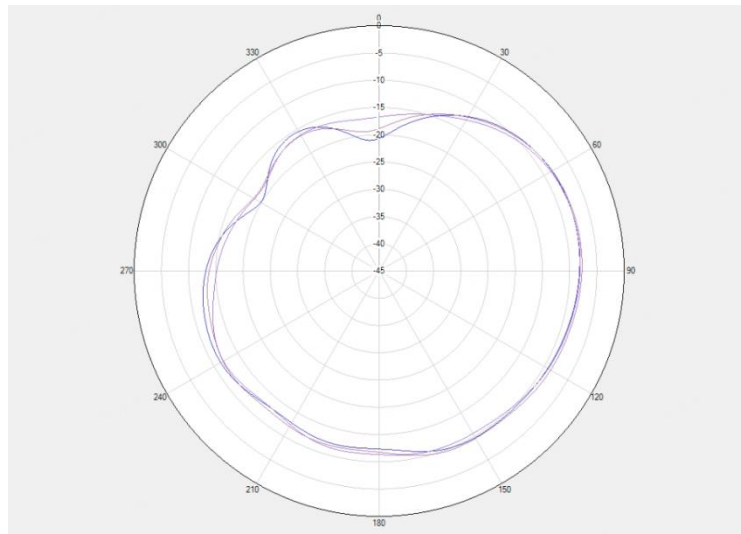
GSM1800/1900 WCDMA B2 LTE B2/B3/B4/B66 NR n3/n66 Theta=90deg



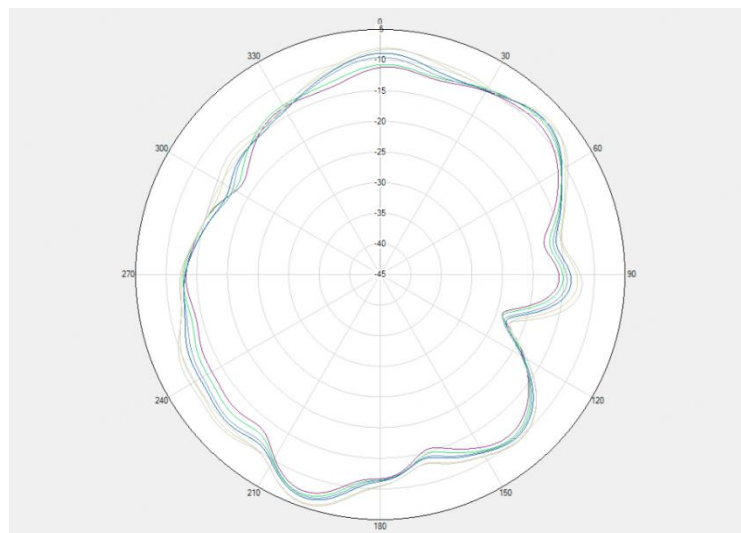
LTE B40 NR n40 $\Phi=0^\circ$



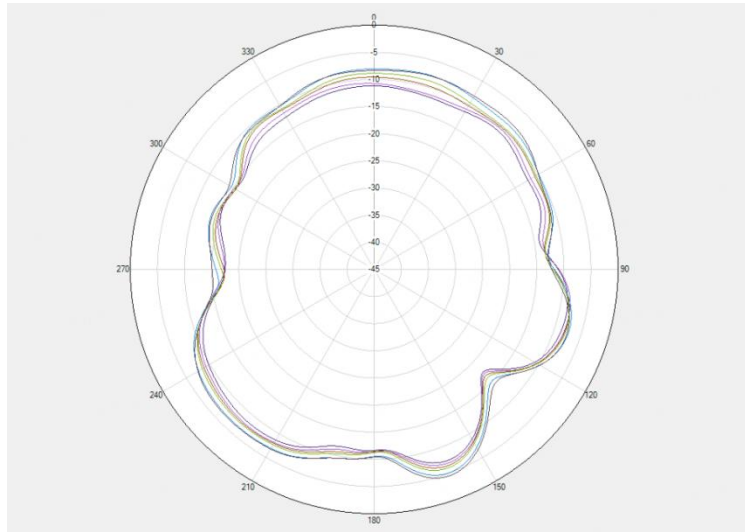
LTE B40 NR n40 $\Phi=90^\circ$



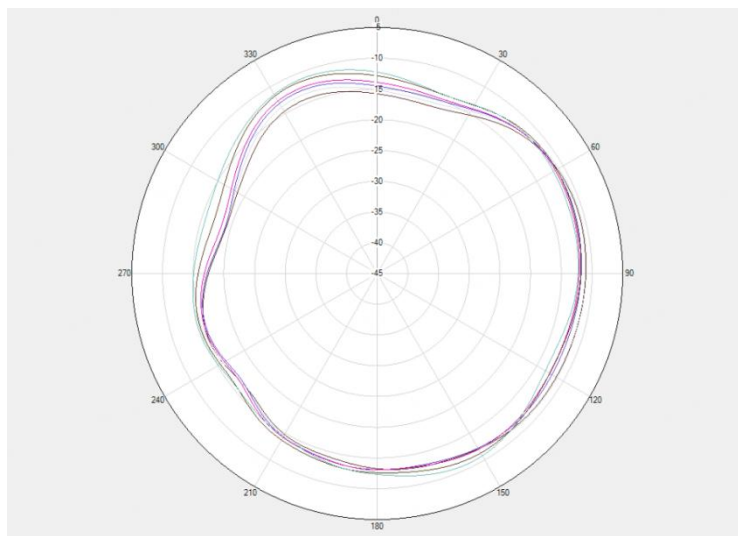
LTE B40 NR n40 Theta=90deg



LTE B7/B38/B41 NR n7/n38/n41 Phi=0deg

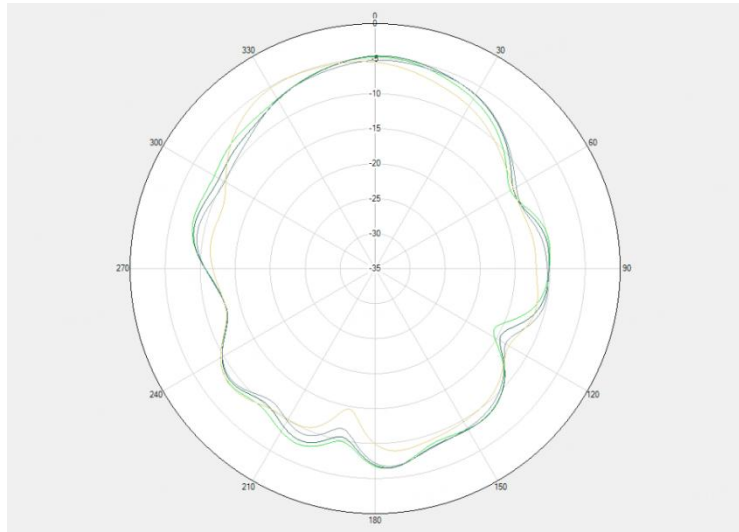


LTE B7/B38/B41 NR n7/n38/n41 $\Phi = 90^\circ$

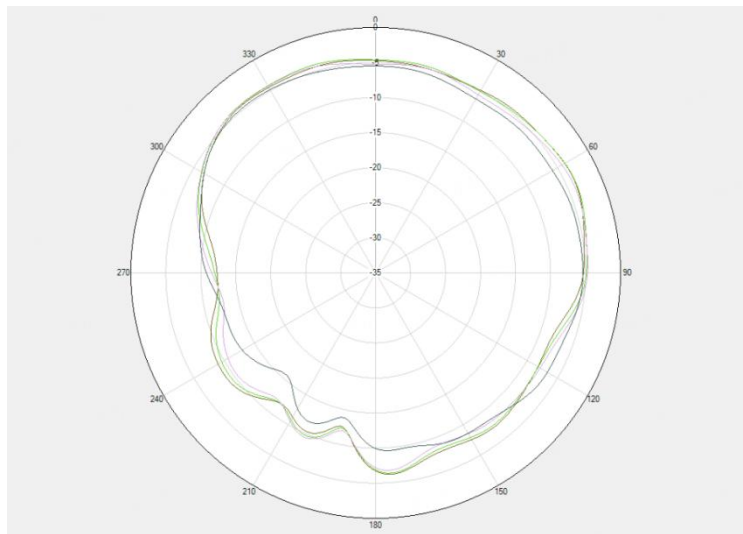


LTE B7/B38/B41 NR n7/n38/n41 $\Theta = 90^\circ$

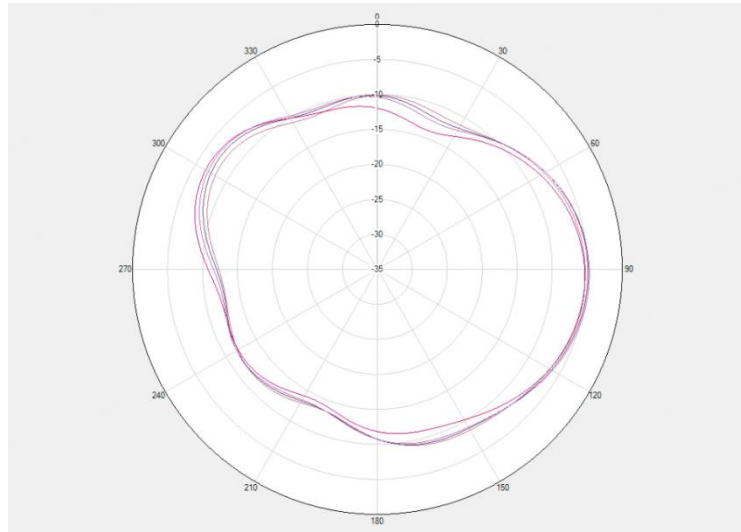
ANT5



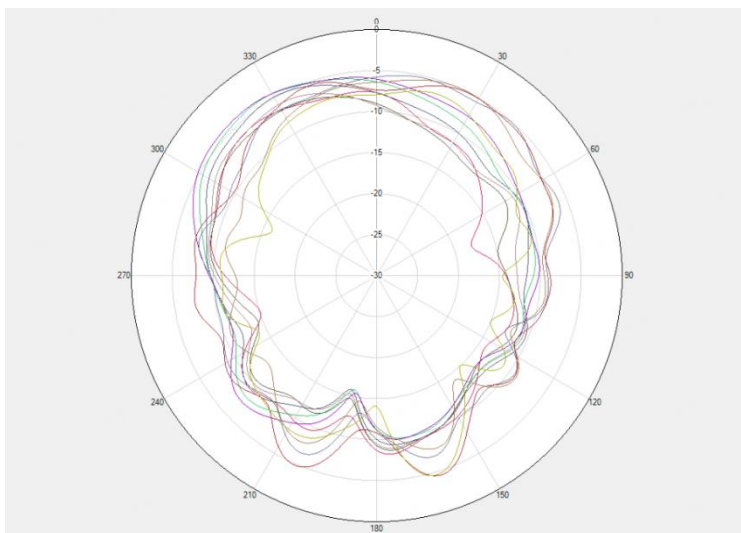
LTE B3/B4/B66 NR n3/n66 Phi=0deg



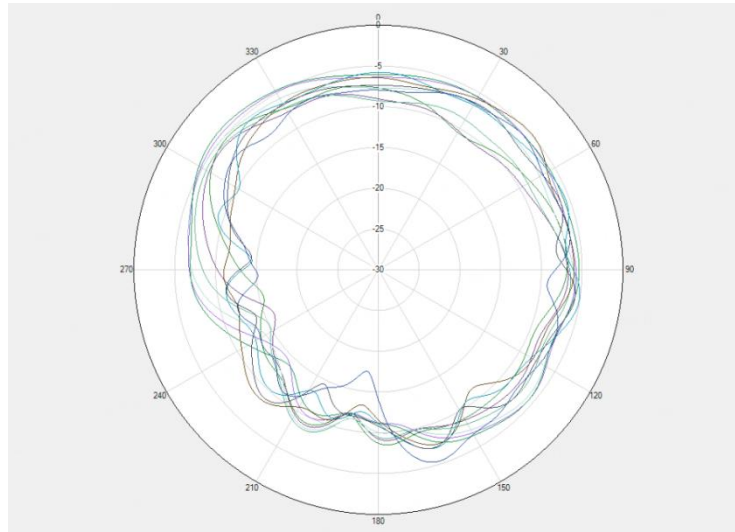
LTE B3/B4/B66 NR n3/n66 Phi=90deg



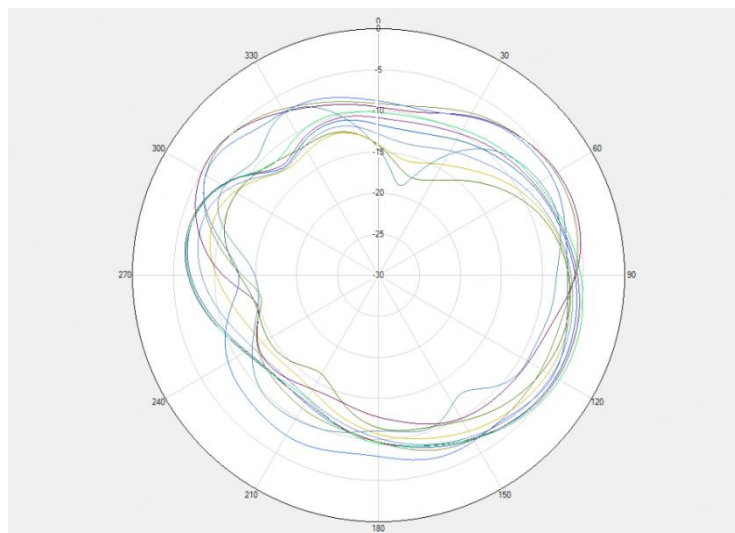
LTE B3/B4/B66 NR n3/n66 Theta=90deg



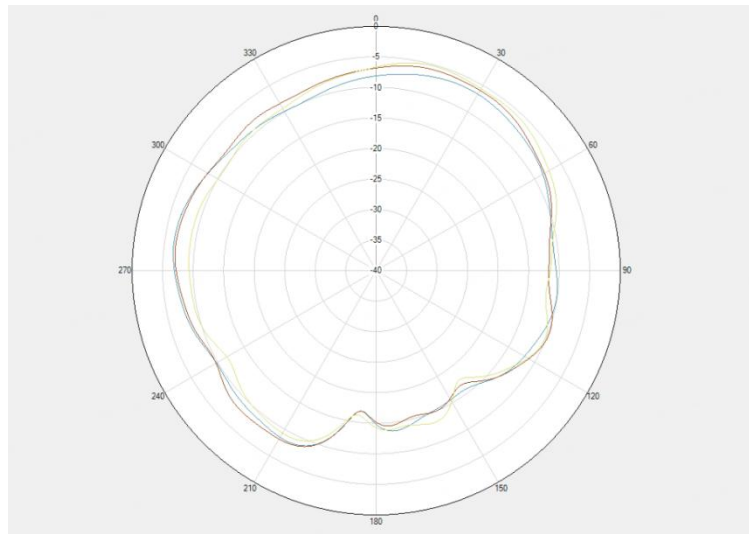
LTE B1/B2 NR n1/n77/N78 Phi=0deg



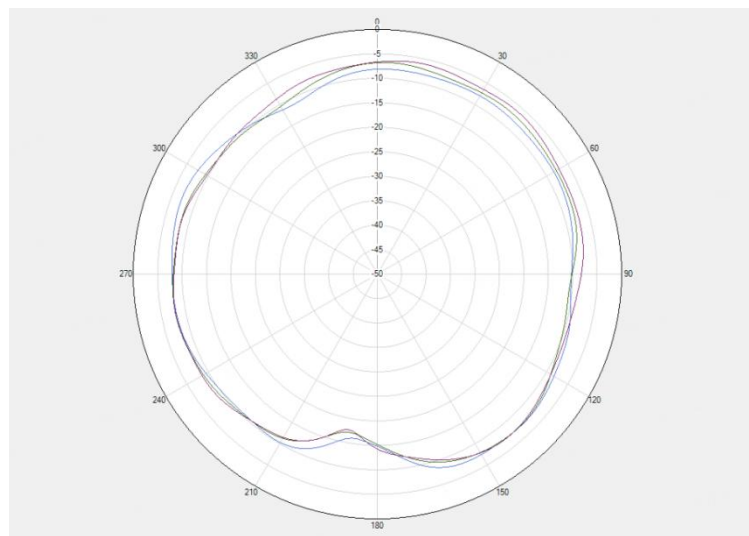
LTE B1/B2 NR n1/n77/N78 Phi=90deg



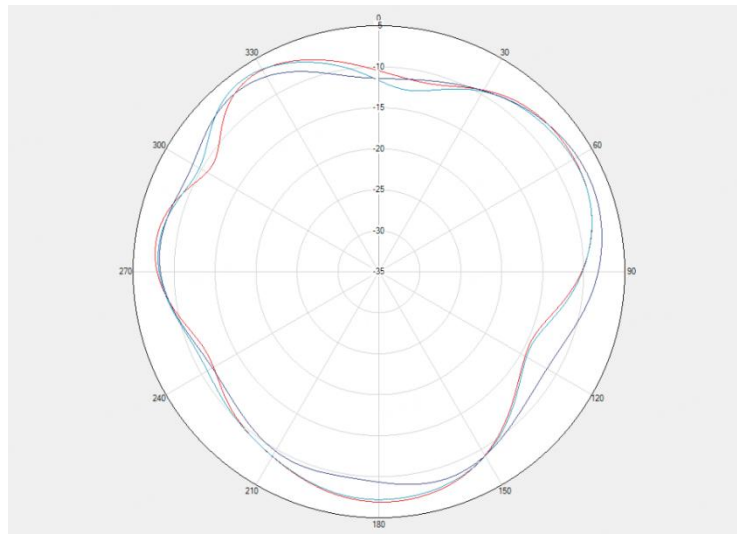
LTE B1/B2 NR n1/n77/N78 Theta=90deg



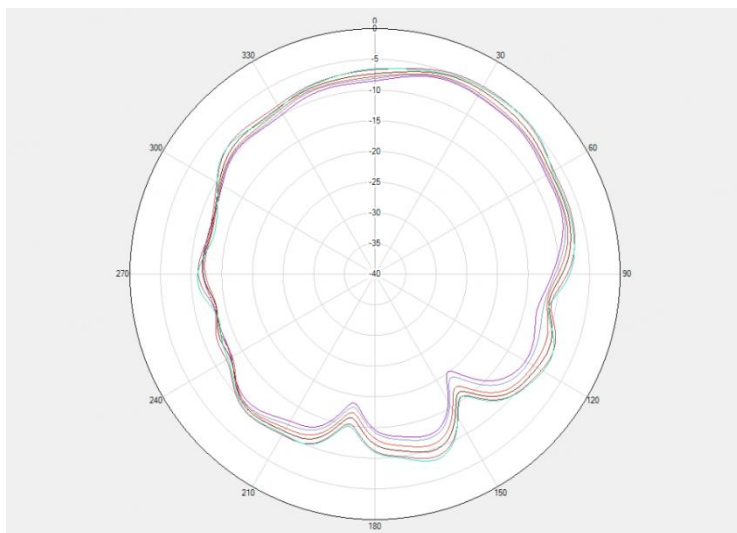
LTE B40 NR n40 $\Phi=0^\circ$



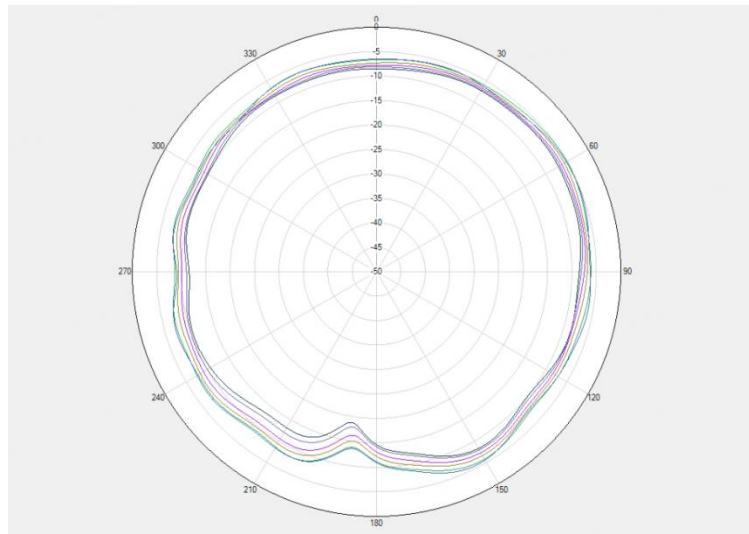
LTE B40 NR n40 $\Phi=90^\circ$



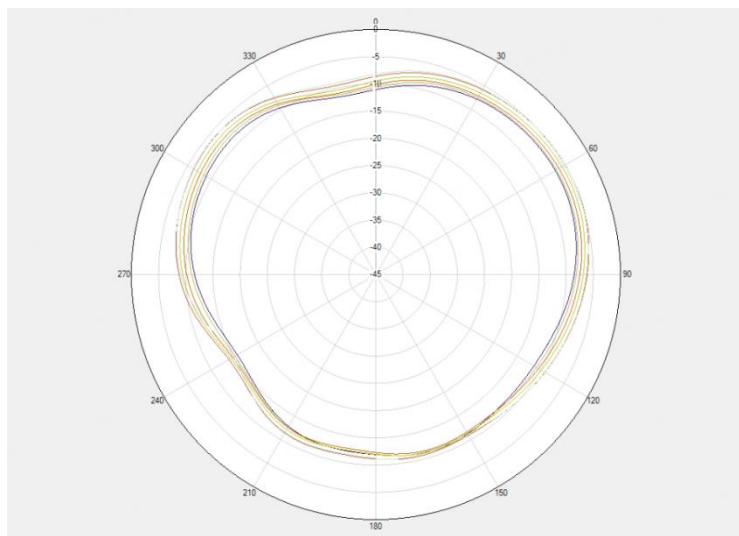
LTE B40 NR n40 Theta=90deg



LTE B7/B38/B41 NR n7/n38/n41 Phi=0deg

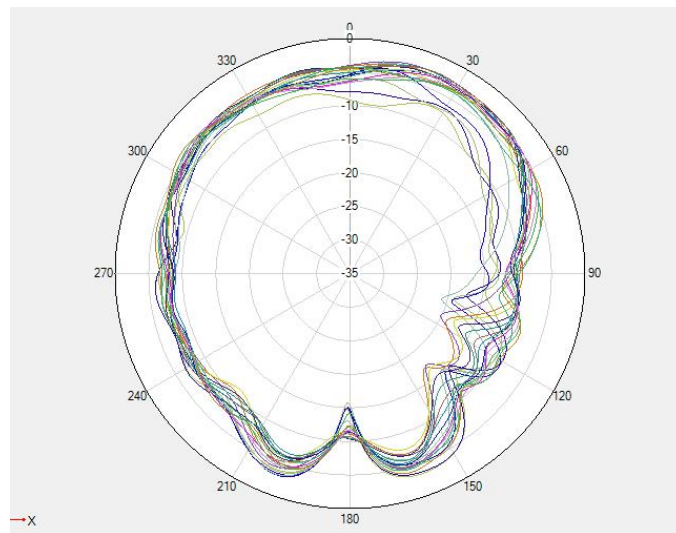


LTE B7/B38/B41 NR n7/n38/n41 $\Phi=90^\circ$

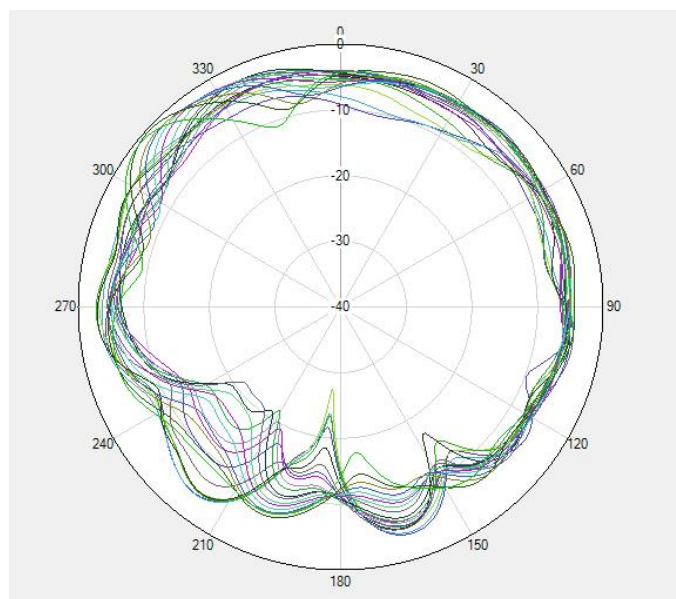


LTE B7/B38/B41 NR n7/n38/n41 $\Theta=90^\circ$

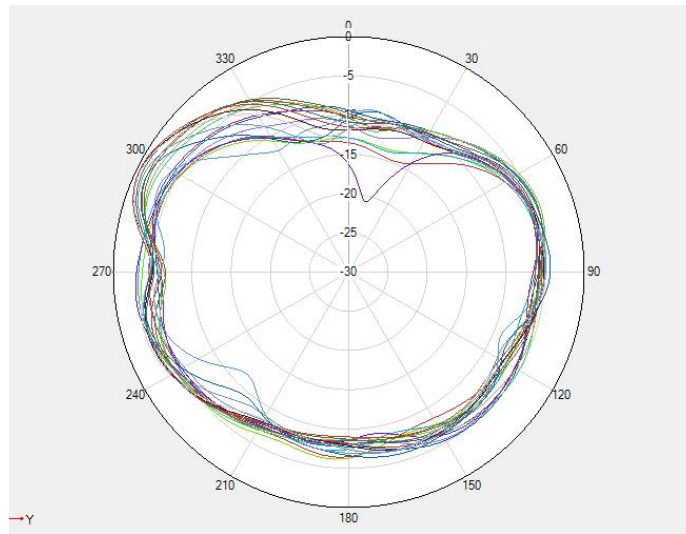
ANT6



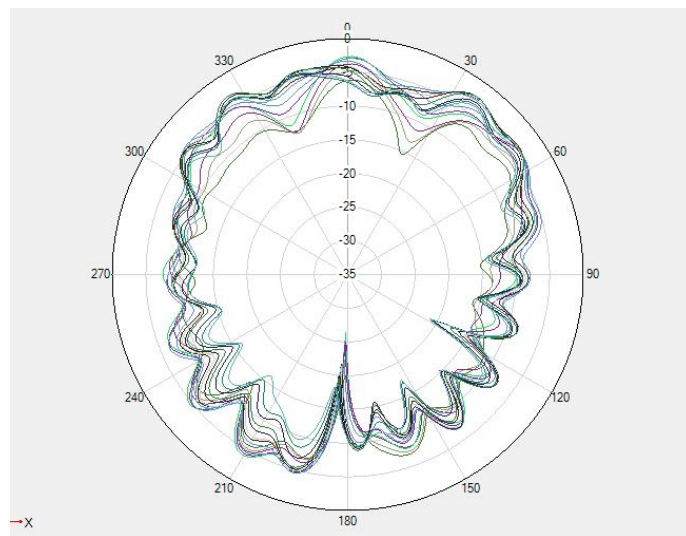
NR n77/n78 $\Phi=0^\circ$



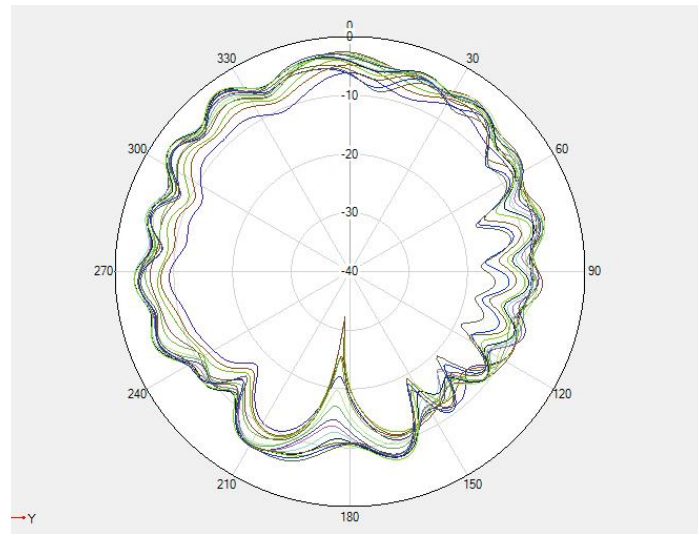
NR n77/n78 $\Phi=90^\circ$



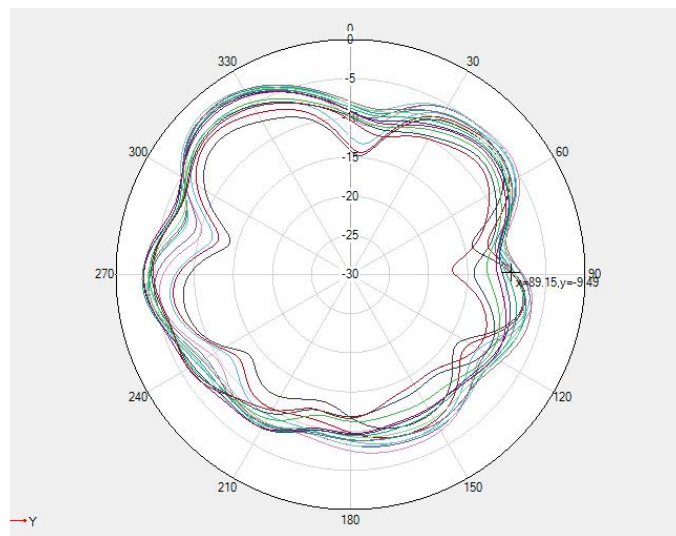
NR n77/n78 Theta=90deg



5G WIFI Phi=0deg

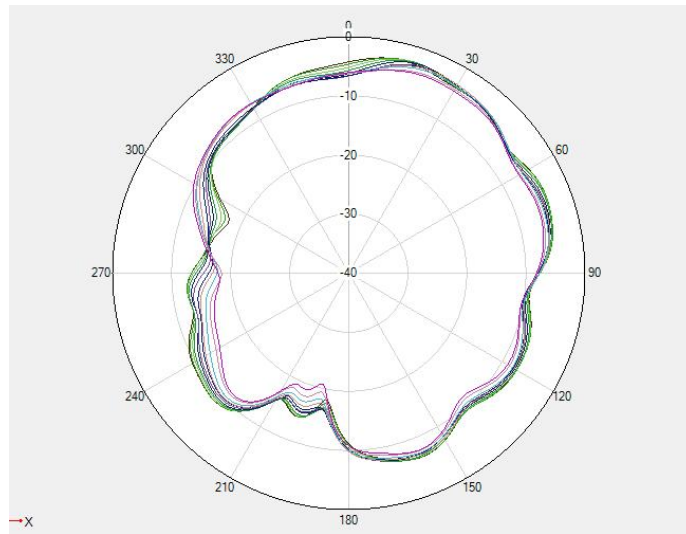


5G WIFI $\Phi=90\text{deg}$

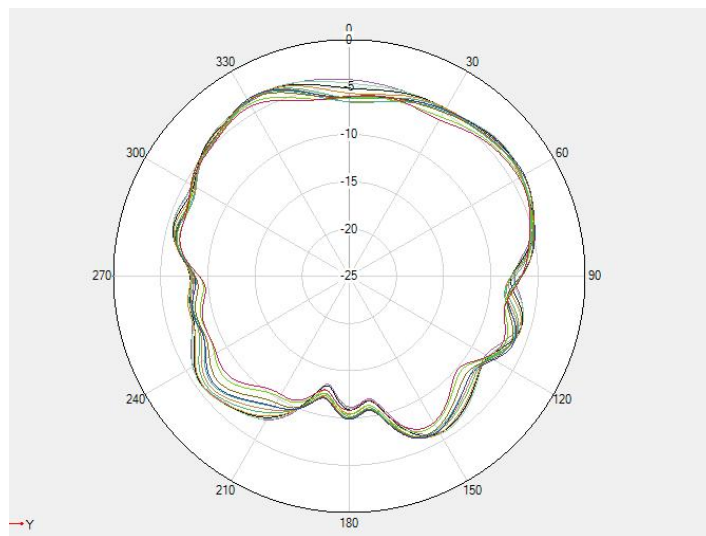


5G WIFI $\Theta=90\text{deg}$

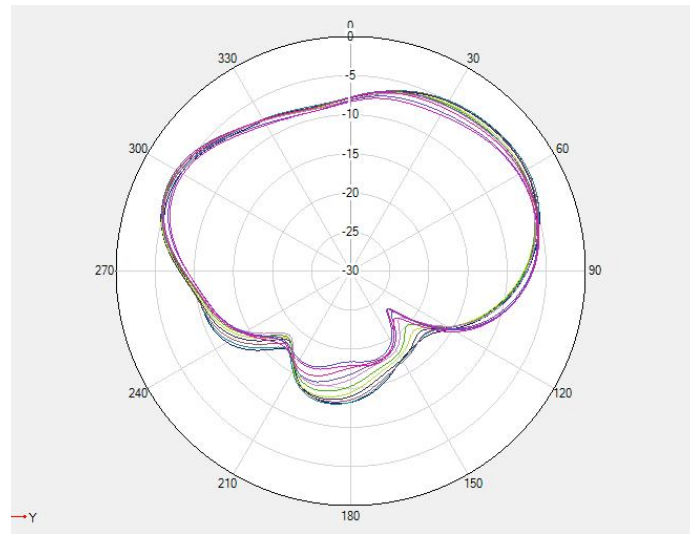
ANT12



2.4G WIFI $\Phi=0^\circ$

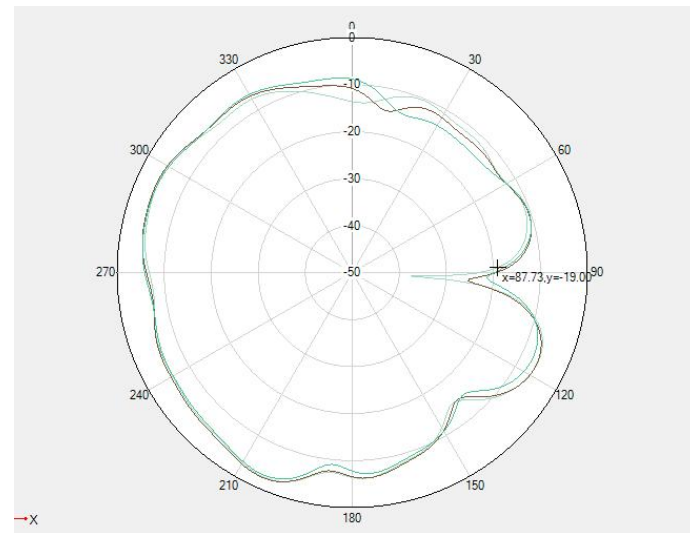


2.4G WIFI $\Phi=90^\circ$

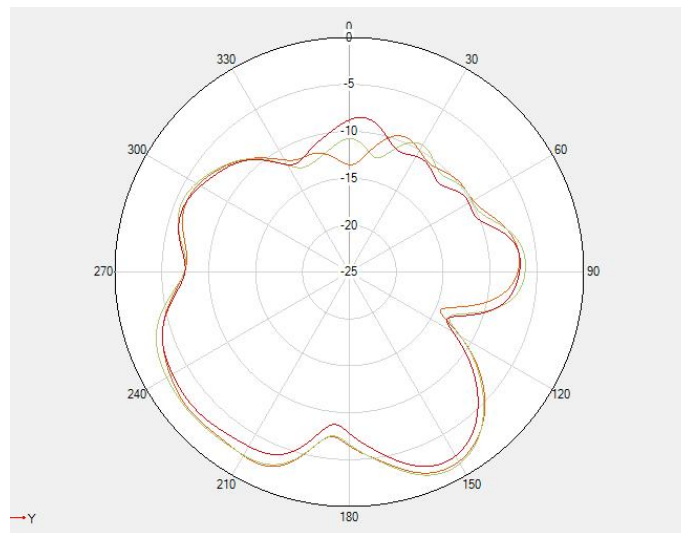


2.4G WIFI $\Theta = 90^\circ$

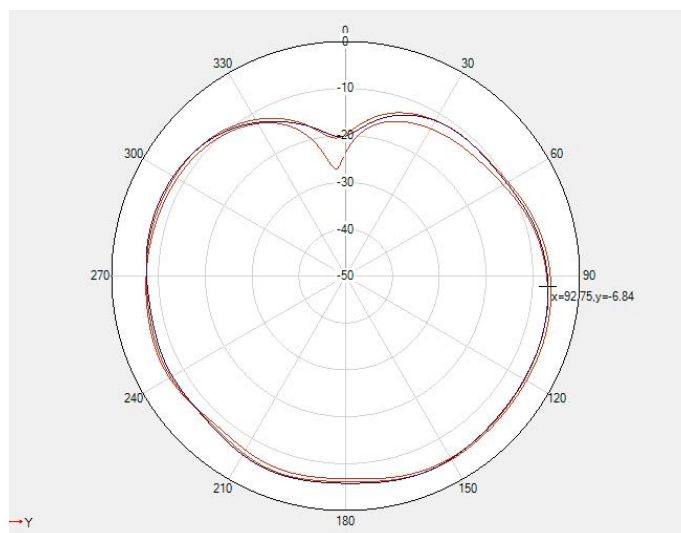
ANT13



2.4G WIFI/BT $\Phi = 0^\circ$



2.4G WIFI/BT $\Phi=90^\circ$

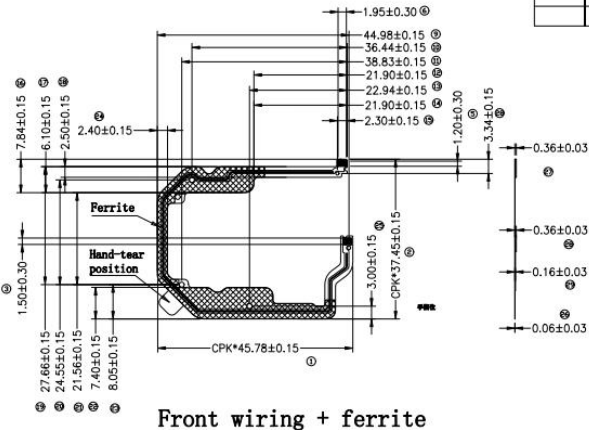


2.4G WIFI/BT $\Theta=90^\circ$

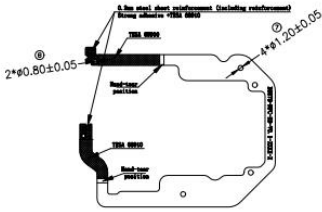
NFC:

EC-PMD-QR-018
No DC-2507-018

Version	Modifications	Modifier	Date
TA	PHI	LQF	25.08.26



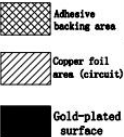
Front wiring + ferrite



Reverse side + character

- Technical requirements
1. Single-sided panel, with all coating on the copper foil surface;
 2. The oil should be uniform, matte black oil (0.01-0.03mm);
 3. With "x" symbol size is the key size;
 4. The TMS 9900 for the back adhesive (T=0.1mm);
 5. The substrate size (T=0.08mm), and is a half-to-half substrate;
 6. Electrolytic copper, copper foil thickness 0.08mm;
 7. The gold plating thickness in the gold-plated area should be above 0.05 μm, and the nickel plating thickness should be 0.4 μm;
 8. All unetched fillets are 0.2mm, and the process edge is 0.2mm;
 9. Unspecified tolerances shall be in accordance with the general tolerance table;
 10. The material must comply with RoHS (P) halogen-free (RoHS) requirements. There should be no oxidation phenomenon during the salt spray test for 48 hours;
 11. Packaging method: Single PCS packaging for shipment.

2	Ferrite	41.67*35.56*0.12	1
1	NFC-FPC	45.78*37.45*0.06	1
No	Name	Specification	Dosage



Shenzhen ETHETA Communication Technology Co., LTD Room 401, Factory Building, No. 6, Qinyang Road, Dongfang Community, Songgang Subdistrict, Bao'an District, Shenzhen City			
	PART NAME: X5878-NFC	DATE:	25.08.26
TOLERANCE XX ±0.20 XX ±0.10 XXX ±0.05 ANGULAR < ±0.5°	PART NO: RD1252506N887-1	DRAWN:	LQF
	MATERIAL: FPC+Ferrite	CHECKED:	SZX
	FINISHING: Au/Ni	APPROVED:	ZXY
UNIT:mm	COLOUR:black	SCALE: 1:1	TER: T-A

PREPARED BY	CHECKEDBY	APPROVAL BY	S.R.NO	
			DATE:	2023/02/05